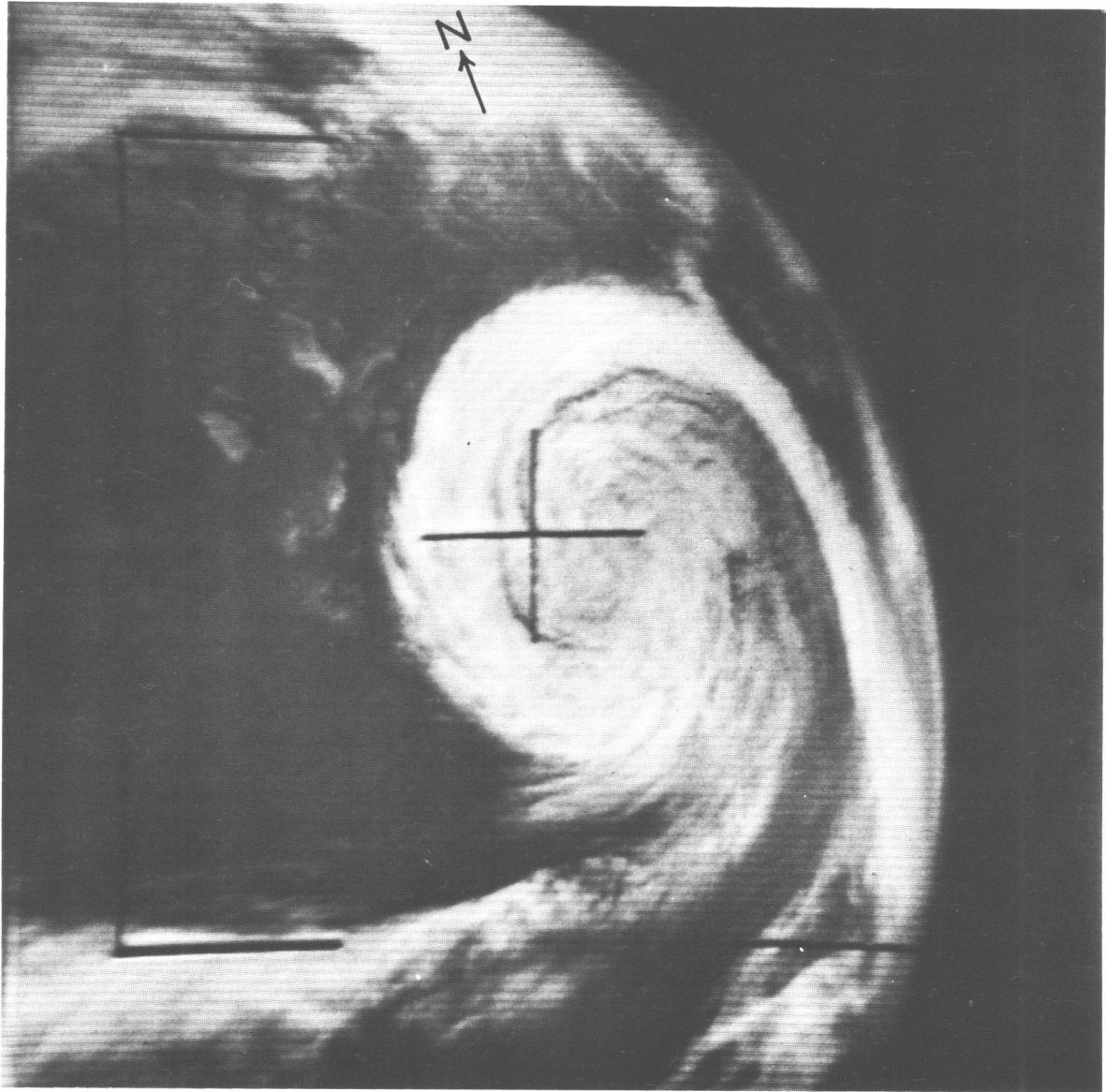


PICTURE OF THE MONTH



TIROS IX, Pass 1257/1256, Camera 2, frame 11, 0851 GMT, May 6, 1965

This tightly-wound cloud spiral—much more compact in the central area than is usually observed—was photographed over Russia on May 6, 1965. The center of the cloud vortex was near 56° N., 44° E., approximately 200 n. mi. east of Moscow. North is indicated by the arrow.

In addition to the unusual compactness, such a clearly-defined cloud vortex is rarely seen over land; convective and orographic influences generally tend to mask and disarrange the land-based cloud spirals. It is not surprising to discover that this cloud vortex occurred over relatively flat terrain and that it was associated with a nearly stationary, well-occluded, cold-core cyclone whose structure had changed little during the preceding 24 hr. At the time of the photograph the cyclone was of moderate intensity (998 mb.) and was nearly vertical—the surface Low, the 500-mb. Low, and the cloud vortex were all centered near 56° N., 44° E.

The solid cloud band spiraling into the vortex from near the eastern horizon corresponds to the occluded front. It consists mainly of middle and upper-level stratiform layers and is 100–150 mi. in width. Mixed convective and layer-type clouds at low and middle levels occupy the central area of the cyclone, with most surface stations in that area reporting light precipitation at 0600 GMT. The existence of high clouds near the vortex center was not determined because of the presence of lower overcast.

The other major cloud band, near and roughly parallel to the bottom of the picture, does not correspond to any well-defined feature on the surface or 500-mb. charts. The band may be associated with a jet stream, but the necessary upper-level data to verify this conjecture are not immediately available.

The small, irregular whitish patches northwest of the vortex are lakes whose surfaces are partially ice-covered.